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10-069832

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Dated

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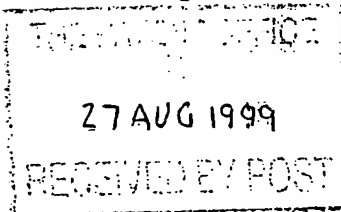
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Request for grant of a patent

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

The Patent Office

Cardiff Road
Newport
Gwent NP9 1RH

1. Your reference

A931

2. Patent application number

(The Patent Office will fill in this part)

9920225.1

3. Full name, address and postcode of the or of each applicant (underline all surnames)

BRITAX WINGARD LIMITED
Seton House
Warwick Technology Park
Gallows Hill, Warwick CV34 6DE

Patents ADP number (if you know it)

~~6227458001~~

06 2274 58002

If the applicant is a corporate body, give the country/state of its incorporation

GB

4. Title of the invention

SIDE ILLUMINATION ARRANGEMENT FOR MOTOR VEHICLE

5. Name of your agent (if you have one)

Antony HOLLINGHURST

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

Factory 1, Castle Trading Estate
Portchester, Hampshire
PO16 9SD

Patents ADP number (if you know it)

398006

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Country

Priority application number
(if you know it)

Date of filing
(day / month / year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing
(day / month / year)

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer 'Yes' if:

- a) any applicant named in part 3 is not an inventor, or
 - b) there is an inventor who is not named as an applicant, or
 - c) any named applicant is a corporate body.
- See note (d))

SIDE ILLUMINATION ARRANGEMENT FOR MOTOR VEHICLE

This invention relates to a side illumination arrangement for a motor vehicle arranged to illuminate the lower part of the side of the vehicle and the adjacent ground.

5 Illumination arrangements of this type can serve many purposes. For example, GB-A-894928 discloses an arrangement of this type for the purpose of providing a pool of light on each side of the vehicle in order to
10 enhance its visibility to other drivers. The arrangement comprises six downwardly directed lights on each side of the vehicle mounted in specially provided housings formed in the panels of the vehicle body and located below the level of the bottom of the vehicle windows. This
15 arrangement is relatively expensive to provide because of the necessity to modify vehicle body panels in order to incorporate the light housings.

DE-A-3635471 discloses an arrangement of this type comprising a light mounted in a vehicle door mirror. The
20 vehicle has a door locking system which is operable by means of a hand held remote transmitter and operation of the lights is linked to the door locking system so that the lights are illuminated when the doors are unlocked, thereby illuminating the ground in the vicinity of the vehicle
25 door. This arrangement serves both to illuminate any puddles adjacent to the vehicle door and also to illuminate any malefactor who may be lurking in the vicinity of the vehicle.

The height at which lights of this type are
30 mounted is a compromise. On the one hand, the area of illumination from a single light can be increased by increasing the height at which the light is mounted. On the other hand, if the lights are mounted below the level of the bottom of the vehicle windows, any tendency to
35 dazzle other road users is reduced.

Accordingly, it is an object of the invention to provide a lighting arrangement of the type described above

door 18, a rear door 20 and a rear quarter panel 22 along each of which extends a respective section of a rubbing strip 24, which is made of extruded synthetic rubber or similar resilient or semi-resilient material. The other side of the vehicle is a substantial mirror image of the side illustrated in Figure 1.

Referring to Figure 2, the rubbing strip 24 comprises a moulded body 26 of substantially uniform cross-section along its length and with substantially conical projections 28 and 30 at intervals therealong adapted to project through holes in the vehicle body panels. The projections 28 and 30 are equipped with conventional lateral projections (not shown) arranged to engage with the inner surface of the corresponding body panel such as the body panel 20 so as to hold the strip 24 in place.

In accordance with the invention, the body 26 of the rubbing strip 24 contains an elongate recess 32 which has an opening on its lower side enclosed by a translucent lens 34. A reflector 36 extends along the upper and inner end of the recess 32 which also contains a light source 38 which may comprise a row of tungsten filament bulbs, a row of light-emitting diodes or any other convenient lights source as desired. Seal members (not shown) close the ends of the recess 32 each section of the rubbing strip 18.

Instead of forming the rubbing strip 24 from extruded material, each section thereof may be formed as an individual moulding, thus avoiding the need for seal members to close the ends of the recess 32 in each section. Electrical conductors for energising the light source 38 may be embedded in such a moulding. As an alternative to providing the recess 32, light emitting diodes may be moulded into each section of the rubbing strip, thus avoiding the need to provide a separate lens 34 and reflector 36.

Figure 3 shows a control system for the light source 38, which inhibits energisation when the vehicle is travelling at normal highway speed. The control system

housing 74 has an opening which is covered by a translucent lens 78. The housing 72 has a resiliently mounted lug 80 at one end and a fixed lug 82 at the other. The lugs 80 and 82 engage with opposite edges of the opening in the wheel arch 70 so as to hold the housing 74 in place.

As can best be seen from Figures 5 and 7, the housing 72 also has two guide tracks 84 and 86 extending on opposite sides of the lens 78. A cover 88 is slidably mounted in the guide tracks 84 and 86 so as to be movable between a position shown in Figure 5 in which the lens 78 is exposed and a position shown in Figure 7 in which the lens 78 is covered. Normally, the cover 88 is in its closed position so as to protect the lens 78 from debris thrown up by the wheel 12. When it is desired to illuminate the adjacent area, for example to assist in changing the wheel 12, the cover 88 can be slid to its open position. Energisation of the bulb 76 is controlled by a manual switch in the vehicle. The wheel arches of the other three wheels of the motor vehicle 10 are preferably equipped with similar lights.

Fig. 1

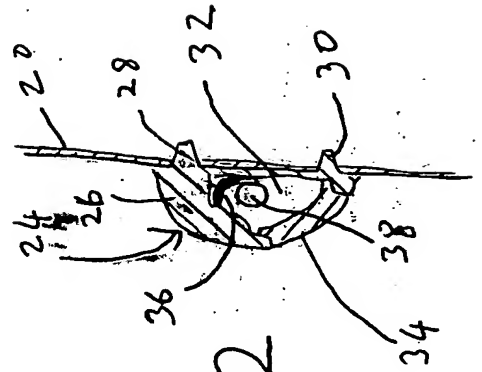
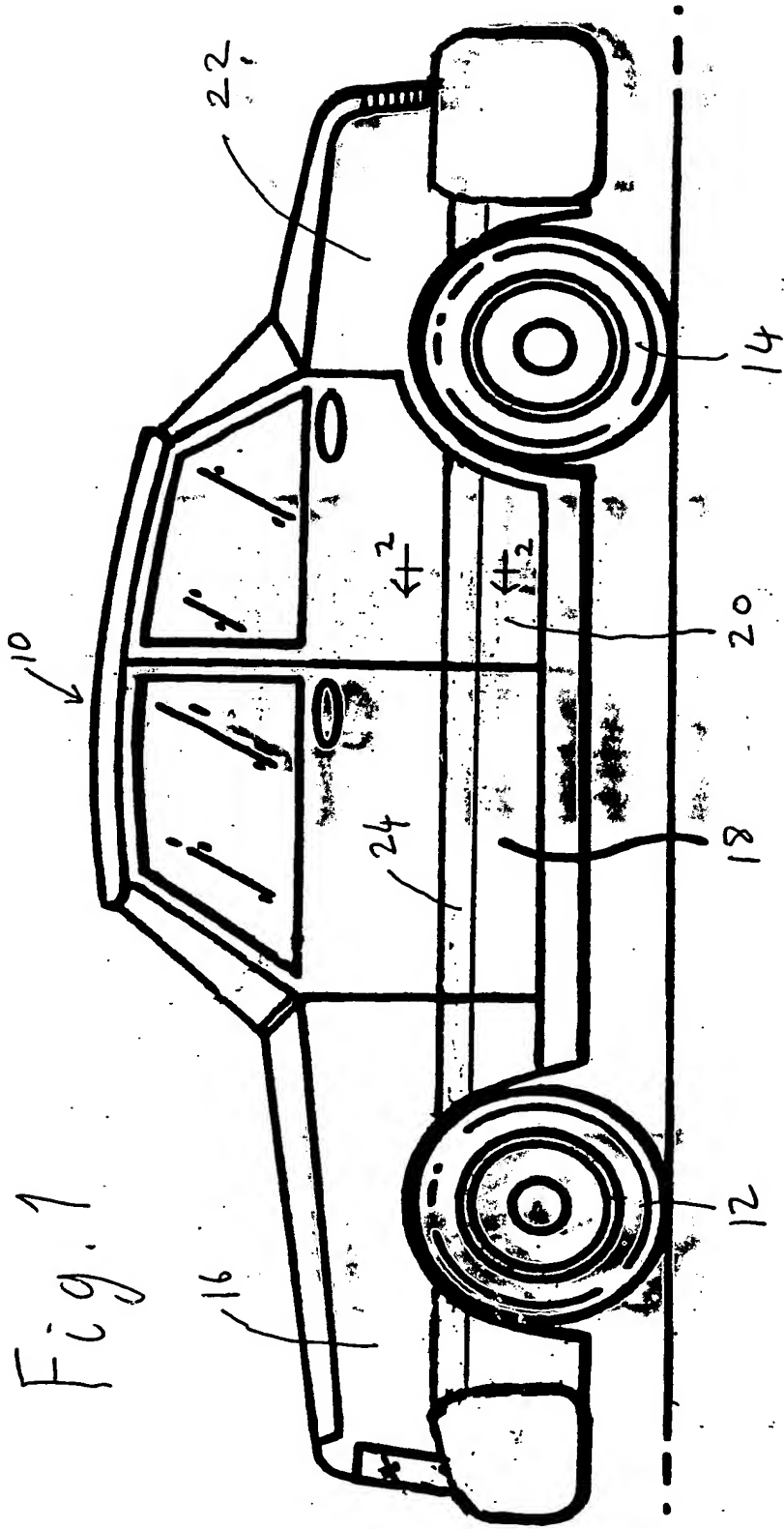


Fig. 2

Fig. 3

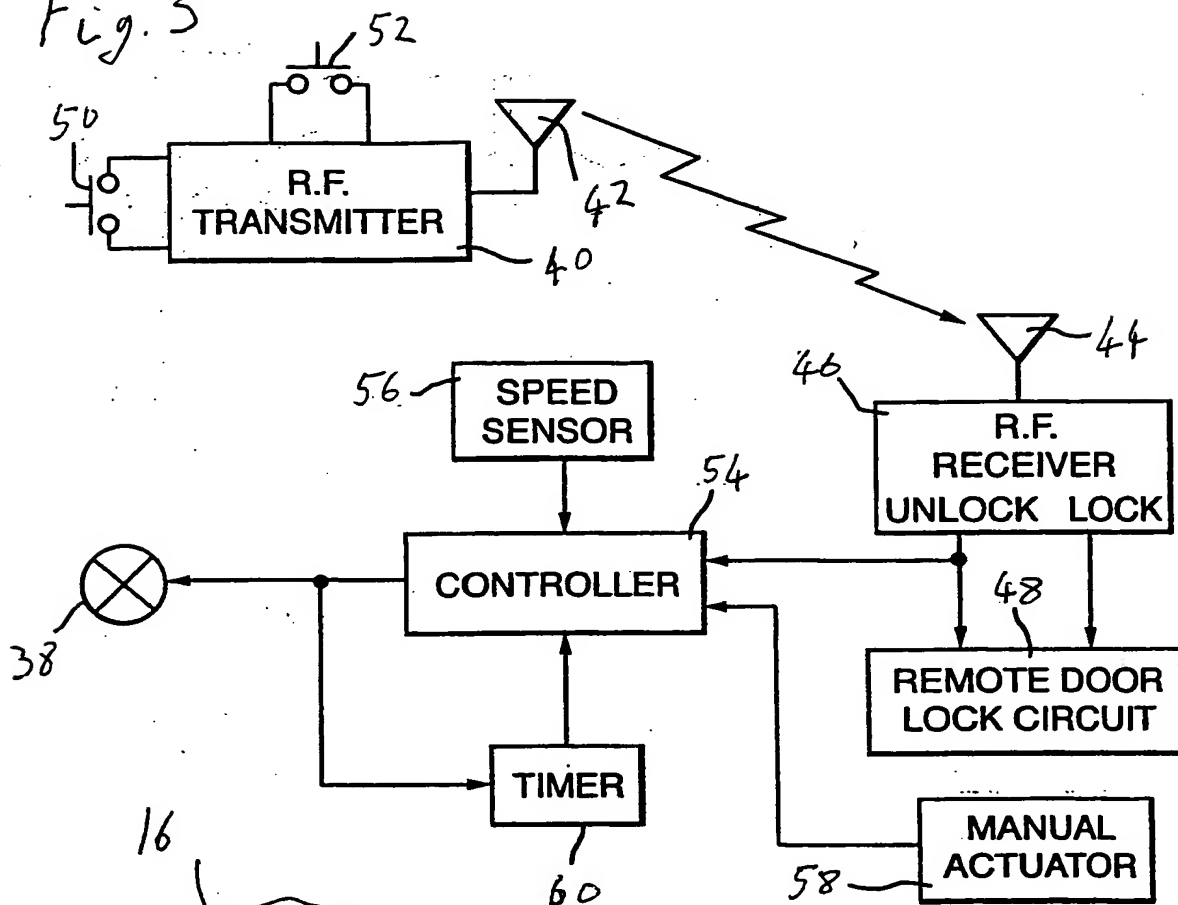


Fig. 4

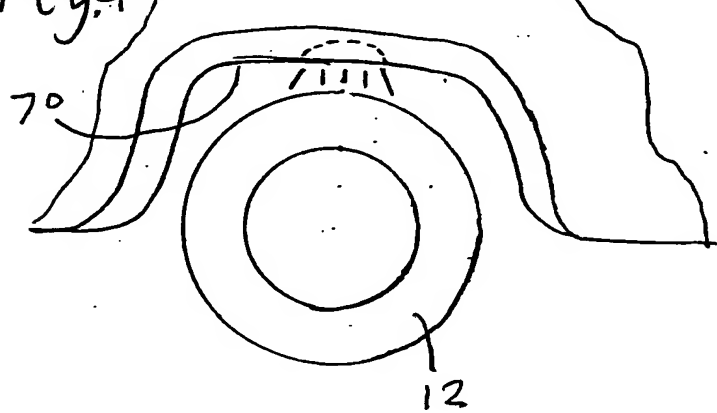


Fig. 5

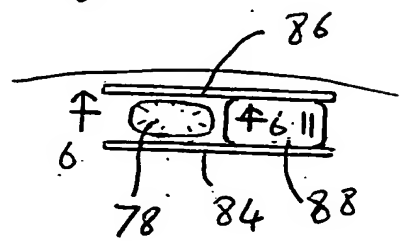


Fig. 6

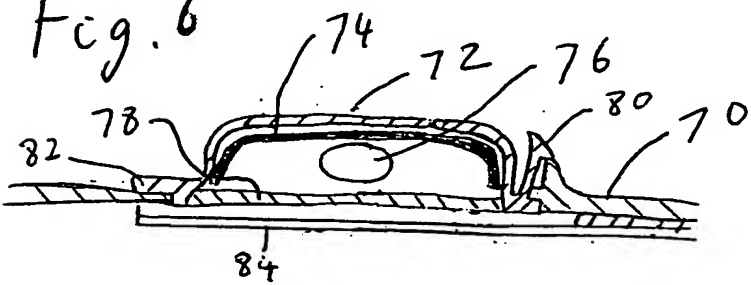
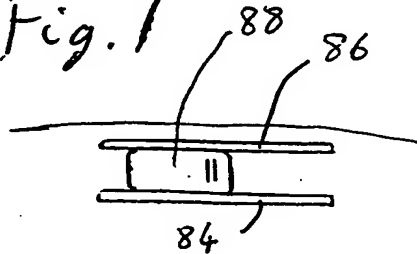


Fig. 7



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